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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,080	07/08/2003	Mykhailo Shribak	34250-54	9681
27799	7590	03/10/2006		EXAMINER
		COHEN, PONTANI, LIEBERMAN & PAVANE		NGUYEN, TU T
		551 FIFTH AVENUE	ART UNIT	PAPER NUMBER
		SUITE 1210		2877
		NEW YORK, NY 10176		

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/616,080	SHRIBAK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tu T. Nguyen	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 January 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 and 18-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election without traverse of Species I (claims 1-4,18-23) in the reply filed on 01/13/2006 is acknowledged.

***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Abstract***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure

sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

For this applicant, the abstract has more than 150 words.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2,4-14,18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pezzaniti et al (5,788,632).

With respect to claim 1, Pezzaniti discloses an apparatus for measuring retardance (column 3, lines 34-35) in a sample. The apparatus comprises: a sample chamber 14 (fig 6) for receiving the sample; an illuminator 44a (fig 6) for providing an illumination light; optics 48a (fig 6) for directing the illumination light toward the sample; a detector 18 (fig 6) for measuring an intensity of light incident on the detector; optics 40a (fig 5) for directing light that has interacted with the sample toward the detector; a first polarizer 12 (fig 1) for selectively transmitting light that is substantially circularly polarized (column 11, lines 25-30); a second polarizer 16 (fig 1) for selectively transmitting light that has a selected elliptical polarization state (column 11, lines 25-30); a controller 20 (fig 1) for varying a selected elliptical polarization state of the second polarizer to

correspond to a plural number of states (column 8, lines 25-65) and a processor connected to the detector for determining the sample retardance (column 11, lines 5-7).

Pezzaniti does not disclose none of the states  $X_i$  corresponding to circular polarization. Since Pezzaniti discloses using an analyzer (column 11, lines 10-15) for controlling the polarizer (column 11, lines 25-30) to select the states of the  $X_i$ . It would have been obvious to modify Pezzaniti by selecting the states of  $X_i$  as claimed to measure different type of samples.

Pezzaniti does not disclose a plurality number of states  $X_i$  being corresponding with a chosen Poincare latitude and longitude within a distance of a chosen pole of a Poincare sphere. Pezzaniti discloses selecting the states of  $X_i$  based on Mueller matrices (column 11, lines 25-30). However, Pezzaniti discloses that the states of  $X_i$  could be converted to the Poincare sphere coordinate (column 8, lines 31-45). It would have been obvious to modify Pezzaniti to calculate the retardance of the sample by using the claimed Poincare sphere coordinate and selecting the states of  $X_i$  having the longitude and latitude as claimed to facilitate the measuring.

With respect to claim 2, Pezzaniti discloses detecting a transmitted light 18 (fig 1).

With respect to claim 4, Pezzaniti discloses the first polarizer 12 (fig 1) is located between the illuminator 10 (fig 1) and the sample chamber; and the

second polarizer 16 (fig 1) is located between the sample chamber and the detector 18 (fig 1).

With respect to claim 5, it would have been obvious a designed choice to modify the location of the first and second polarizers as claimed for measuring different type of samples.

With respect to claims 6-8,13-14,20-21, it would have been obvious to modify Pezzaniti by selecting different number of states  $X_i$  or choosing different distance  $\epsilon$  to measure different characteristics of the sample.

With respect to claims 9-12, the claimed electro-optic retarder, fixed retarder, mechanical switching, broadband light or monochromatic light would have been known. It would have been obvious to modify Pezzaniti with the known limitations above to reduce the cost of the system. Further, Pezzaniti discloses using a filter 46a (fig 6).

With respect to claims 18-19, refer to discussion in claim 1 above for measuring the retardence and refer to discussion in claim 8 above for the number of states.

With respect to claims 22-23, it would have been obvious to modify Pezzaniti with the claimed calibrating method for calibrating the system before using to facilitate the measuring.

*Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pezzaniti et al (5,788,632) in view of Wang et al (6,697,157).*

With respect to claim 3, Pezzaniti does not disclose detecting a reflected light. Wang discloses a system for measuring retardance of a sample. The system discloses measuring a reflected light (fig 7). It would have been obvious to modify Pezzaniti with Wang to use the system in different environments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu T. Nguyen  
Primary Examiner  
Art Unit 2877

03/01/2006